Borough Council of
King's Lynn &
West Norfolk

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WEST WINCH GROWTH AREA (WWGA) TOPIC PAPER

April 2023

Contents

Introduction

1. Following the adjournment of the Local Plan Examination Hearing on the 11 January 2023 the Inspectors wrote to the Council requesting that a topic paper was prepared to bring together the evidence supporting the proposed allocation for up to 4,000 dwellings at the West Winch Growth Area to cover the following matters:

    - The history and evolution of the proposal for growth south east of King's Lynn and at West Winch, with reference to evidence provided for the Examination in the current adopted development plan.
    - The current planning status of the site in terms of progress on the masterplan for the WWGA and on planning applications for the respective phases of the adopted allocation for 1,600 dwellings.
    - Justification for the additional growth (of 2,400 dwellings) proposed in the submitted Plan, over and above the 1,600 dwellings for which the site is allocated in the SADMP, particularly in light of the size of the overall surplus of housing land up to the end of the Plan period and beyond.
    - An explanation of the results of any modelling of traffic and transport impacts arising from the growth of up to 4,000 dwellings at the WWGA, on the operation and safety of the transport network to accommodate this growth, and of the effects of transport interventions proposed to mitigate those impacts.
    - Details for the proposed West Winch Housing Access Road (WWHAR), including the timetable, key dates and milestones in the Business Case process to secure DfT funding, how its delivery would be phased, and the trigger points in the housebuilding programme at which each phase and the full route would be required.
    - A summary of evidence assessing the cumulative impacts of the proposed additional growth on landscape character, heritage assets, biodiversity and ecology, flood risk (including surface water drainage), air quality, community infrastructure and amenity (i.e. residential living conditions), and any recommended mitigations. Where this evidence is not yet available, the necessary assessments should be commissioned and the results summarised in the topic paper, and
    - Detail any suggested MMs to the submitted Plan arising from the above analysis, in particular to Policy E2.1 and its supporting text, and consequential changes to the Housing Trajectory [F22].

    This Topic Paper is a response from the Borough Council of King's Lynn & West Norfolk Council (BCKLWN) to the above. Specific main modifications proposed to the submitted Plan are included under each section where relevant and all proposed main modifications to Policy E2.1 West Winch Growth Area Strategic Policy are contained in Appendix 11 so that all proposed changes can be read together.

History

2. The East of England Plan 2008 (Regional Spatial Strategy) designated King's Lynn a Centre for Development and Change and subsequently the Town was awarded Growth Point Status. Consequently, the Spatial Strategy of the adopted Core Strategy[1] (2011) directed the majority of growth and regeneration to, and around King's Lynn.

[1] https://www.west-norfolk.gov.uk/download/downloads/id/712/core_strategy_document.pdf

3. The BCKLWN Core Strategy Issue Statement No.13 (Appendix 1, Page 2) of the Core Strategy examination set out in tabular form the planning merits of, and constraints upon, the areas selected for urban expansion and employment expansion.

4. The West Winch area was selected as it was the only realistic location for major expansion of King's Lynn Town because of its relationship to the Town and its Flood Zone 1 classification.

5. Policy CS03 of the Core Strategy identified the area southeast of King's Lynn Town adjoining West Winch as an area that would contribute significantly to both current needs and as an area for future growth beyond the plan period.

6. Policy CS09 of the Core Strategy identified growth of at least 1,600 new homes in the Plan period for the area southeast of the Town and reiterated that it would contribute both to current needs and established a direction of future growth to meet anticipated need beyond the plan period.

7. The BCKLWN Core Strategy Issue Statement No.12 (Appendix 2, Paragraph 31) identified that further master planning would be required to grow the development from the initial phase after the Plan period.

8. The Inspector's Report (paragraph 75) on the Examination into King's Lynn and West Norfolk Core Strategy Development Plan Document stated the following:

   King's Lynn: *The 3 areas selected in the CS for urban expansion are the most appropriate to accommodate housing (plus a mix of some other neighbourhood uses) of the scale proposed at King's Lynn. Collectively, they have the best balance of planning merits, and are preferable to any alternatives of comparable size/housing capacity. Importantly, they are virtually free of any significant flood risk, while being capable of being connected by road, public transport and other links to the town centre and other parts of the town. They would not entail large losses of best quality farmland or woodland, and, with good and sensitive architectural and landscape design, their impact on the landscape would not be too intrusive or otherwise harmful.*

9. The Site Allocations and Development Management Policies Document (2016) (SADMP) established the boundary of the Growth Area and acknowledged there would be the potential for further development over and above the 1600 dwellings identified in the Core Strategy beyond the end of the plan period (2026) (E.2.12 of SADMP).

10. At paragraph E2.6 of the SADMP it is suggested that between 3,000 to 3,500 dwellings could be accommodated in the fullness of time, based on the sites that were put forward and work commissioned by a landowner and undertaken by the Prince's Foundation for the Built Environment.

11. Policy E2.1 Part B of the SADMP set out the requirement for the preparation of an Infrastructure Delivery Plan (IDP) for the Growth Area to identify infrastructure and associated costs and to act as a mechanism for apportionment between the respective landowners. Due to the number of dwellings involved in the Growth Area and the amount of housing that could be accommodated beyond the plan period, the IDP set out trigger points and phasing.

12. The IDP looked at the infrastructure requirements, costing and trigger points for 3,500 dwellings which reflected the development potential of the site as acknowledged in paragraph E2.6 of the SADMP and for 3,988 dwellings recognising the potential for future growth.

13. The IDP for the South East King's Lynn Strategic Growth Area was finalised in October 2018 and can be viewed here. Details of the key infrastructure projects in relation to the Growth

Area are also set out in the Infrastructure Delivery Schedule of the Infrastructure Delivery Plan (September 2022) [F24].

14. In the Inspectors Report for the SADMP reference is made to the BCKLWN Cabinet report of the 9 September 2015. On page 337 of the Cabinet Report, there is a table detailing sites that could have the potential to provide a higher number of dwellings than stated in the SADMP. The West Winch Growth Area was included and as can be seen from the table below it was shown that the Growth Area could potentially accommodate up to 4,992 dwellings at a density of 39dph. This was based on the Growth Area as proposed in the submitted version of the SADMP which did not include the addition of the Gravel Hill site that was added to the Growth Area as part of the Examination of the SADMP (Paragraph 60, of the Inspector's Report)

Settlement	Site Ref	Dwelling Allocation	Gross Site Area (Ha)	Model Net Area (Ha)	Model Density (dw per Ha)	SADMP Modelled Density (dw per Ha)	Policy Overview
West Winch	Growth Area	1,600	171	128	39	13	new road, open space, neighbourhood centres, provision of space for future development

15. The Inspector of the SADMP concluded that he was '*satisfied that, as modified, the policies and allocations for King's Lynn and the surrounding area are justified and in all other respects sound.'* (Inspectors Report, Paragraph 74)

Current Planning Status

The current planning status of the site in terms of progress on the masterplan for the WWGA and on planning applications for the respective phases of the adopted allocation for 1,600 dwellings.

West Winch Growth Area Framework Masterplan Supplementary Planning Document

16. The West Winch Growth Area Framework Masterplan Supplementary Planning Document (SPD) was prepared in accordance with the provisions in the Town and Country Planning (Local Planning) (England) Regulations 2012 and was adopted by the Council on 26 January 2023 and is a material consideration in the determination of relevant planning applications.

17. The SPD builds upon and provides more detailed advice and guidance on policies in the adopted Core Strategy (2011), the Site Allocations and Development Management Policies Document (SADMP) (2016) relating to the West Winch Growth Area which are being carried forward into the submitted Plan.

18. The SPD, Adoption Statement and Consultation Statement can be viewed here.

Planning Applications

19. Hopkins Homes submitted an updated Environment Statement and Transport Assessment in December 2021 which was subject to a 30-day consultation with stakeholders. No objection has been raised by Norfolk County Council Highways nor National Highways. Final outstanding matters in so far as off-site drainage are actively being resolved by the applicant in consultation with the LLFA and IDB along with negotiation on S106 matters. Planning Committee dates to determine the application have been identified for Summer/early Autumn 2023. (13/01615/OM).

20. The Metacre application was made valid in February 2022 following submission of an Environmental Statement and this information was also subject to a 30 day consultation. Comments from statutory consultees have been collated and are being actively addressed by the Applicant. The Local Planning Authority is working proactively with the Applicant and Stakeholders to address consultation responses with the planning application expected to be determined by Mid 2024 (18/02289/OM).

Transport Impacts

21. An explanation of the results of any modelling of traffic and transport impacts arising from the growth of up to 4,000 dwellings at the WWGA, on the operation and safety of the transport network to accommodate this growth, and of the effects of transport interventions proposed to mitigate those impacts.

22. A strategic transport model of the King's Lynn area has been built using the SATURN suite of programs based on traffic survey data and using mobile phone network data to determine origin and destinations. This strategic model incudes all of the allocations and future developments set out in the extant Local Plan and beyond. As such, it takes account of all the anticipated growth and predicted traffic increases in the King's Lynn area.

23. The strategic model has been used in combination with detailed microsimulation modelling (Paramics) to investigate the highway impacts of the WWGA and to test the effectiveness of the key mitigation measure which is the A10 West Winch Housing Access Road (WWHAR).

24. The most significant scheme to enable large scale growth in the King's Lynn area, by mitigating the impacts of additional traffic and providing a strategic improvement to the A10 to address existing problems, is the West Winch Housing Access Road (WWHAR). It was understood that the full growth in the West Winch Growth Area (WWGA), up to 4,000 homes, would not occur until during the next Local Plan period after 2026 so a future year of 2039 was chosen to coincide with the Plan period. The traffic forecasting for the WWHAR, submitted as part of the Strategic Outline Business Case (SOBC), included all of the local plan allocations input spatially and was controlled to government forecasts to ensure all the other growth in the King's Lynn area by 2039 was included, and to ensure compliance with government guidance. The 2039 forecasts used assume that the 4,000 dwellings at West Winch are delivered within the Plan period rather than the 2,500 anticipated, and therefore the findings are considered to represent a worst-case scenario and a significant stress-test of the network.

25. This strategic modelling work carried out by the HA to inform the King's Lynn transport strategy, and subsequent modelling work on specific transport interventions like the WWHAR, has satisfied the HA, Norfolk County Council, that there are no significant transport impediments to the proposed spatial distribution of the Local Plan allocations. The only proviso is that the WWHAR is an essential prerequisite for the 4,000 homes in the WWGA, and there is a clear delivery mechanism for this intervention.

26. The LPA has commissioned the HA's consultants WSP to prepare a Transport Technical note that details modelling work which shows the impacts of the development proposed in the Plan and at the WWGA which is included as Appendix 3.

27. This technical note has considered 2 modelled forecast scenarios for 2039 which are described in the Table 1 below.

Table 1. Forecast scenarios for 2039

Name	West Winch Housing Access Road	West Winch Growth Area	Intended use for scenario
Scenario 1	×	4,000 dwellings	Demonstrates unacceptable network performance if the WWHAR scheme does not come forward, but the WWGA does
Scenario 2	✓	4,000 dwellings	Demonstrates the WWHAR scheme will mitigate impacts from the WWGA and wider growth

28. Scenario 1 demonstrates a range of undesirable impacts on the wider highway network as a result of the full 4,000 dwelling development being in place without the WWHAR scheme which include the following:

    - Reduction in northbound traffic on the A10 in the AM, with a southbound reduction occurring on the A10 in the PM as traffic seeks to re-route to avoid the significant congestion at the northern end of the A10 near to the Hardwick Interchange / WWGA access junction. If this were to materialise it would significantly reduce the function of the A10 as a strategic route to access Kings Lynn

    - Re-routing of traffic via unsuitable routes to avoid congestion on the A10 such as Rectory Lane, Chequers Lane and Setch Road as traffic seeks alternative routes to access the A47. These roads are not designed to accommodate significant levels of traffic beyond what they currently experience and the impact on local communities such as North Runcton would be adverse

    - Increases in delay occurring on the A10 at the approach to the A10 / Rectory Lane and the A47 New Road

    - Traffic opting to re-route via High Road / Saddle Bow in order to access the A47 via the A47 / A148 / High Road junction.

29. Scenario 2 considers the impact of 4,000 dwellings with the WWHAR in place and demonstrates the following:

    - no significant capacity issues and no significant delays on the existing A10, A47 or on the WWHAR in the AM or PM peak

    - A47 Hardwick interchange shows higher V/C percentages but continues to operate within capacity and there will be delays exceeding 40 seconds at the A10 circulatory approach in the AM and PM peak

30. In summary, the 2039 forecasts which have been presented for Scenario 1 and Scenario 2 are considered to show the West Winch Housing Access Road (WWHAR) scheme is key to support the delivery of the 4,000 dwellings in West Winch Growth Area and that the scheme is able to mitigate the impacts of this development on the wider highway network. The WWHAR scheme is shown to be appropriately designed to accommodate significant future traffic growth and will ease capacity issues which are currently present on the existing A10. Delivery of the WWHAR scheme will also ensure that the local highway network and associated communities will not be adversely affected by increases in traffic growth.

31. The 2039 forecasts which have been generated are considered to be a significant stress-test of the network given the high trip rates which have been assumed for the overall West Winch Growth Area, and therefore whilst the A47 Hardwick Interchange is shown to experience increased congestion as a result of both the WWGA and removal of the Constitution Hill roundabout as part of the WWHAR scheme, it has been demonstrated this key interchange will continue to operate within capacity.

32. In terms of understanding of the impact WWHAR scheme has on safety, the Paramics micro-simulation model utilised to inform the WWHAR design has fulfilled this requirement. The Paramics model is capable of modelling the interactions between individual vehicles in a high level of delay including the consideration of queuing interactions between junctions and impacts of traffic merging and diverging from the SRN. The WWHAR Paramics model has

considered in detail how the WWHAR scheme performs and has been used to scrutinise and test the scheme design at a micro-level and inform the scheme highway design to ensure it is appropriate and provides a safe solution for how vehicles will interact on the highway network.

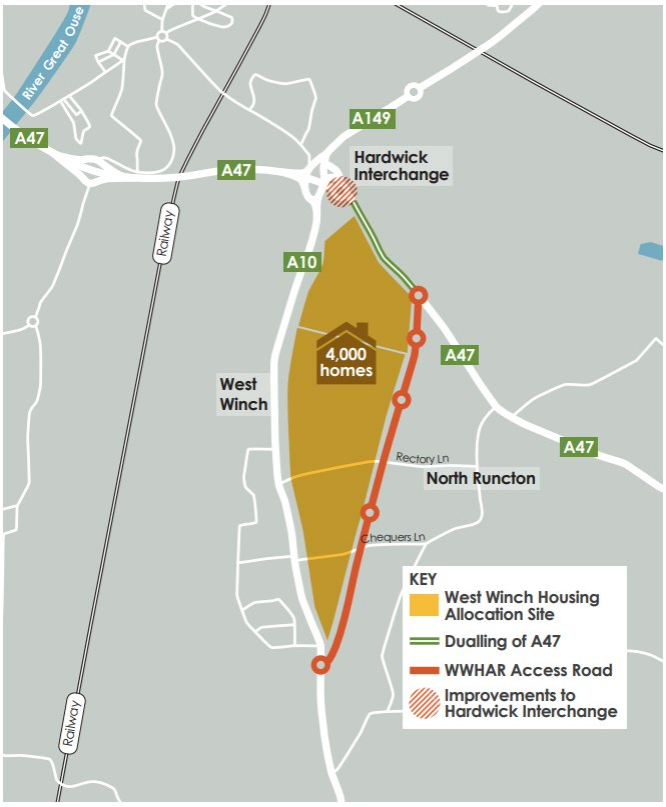
West Winch Housing Access Road

33. Details for the proposed West Winch Housing Access Road (WWHAR), including the timetable, key dates and milestones in the Business Case process to secure DfT funding, how its delivery would be phased, and the trigger points in the housebuilding programme at which each phase and the full route would be required.

34. The West Winch Housing Access Road (WWHAR) will serve the Growth Area which will see up to 4,000 new homes built. It will ensure traffic from the new development has a minimal impact and help to address traffic problems on the existing A10 by providing an alternative route around the village of West Winch and allow traffic calming measures to be introduced along the existing A10, improving safety and living conditions. The WWHAR will conform with the Major Network Standards and once completed will become part of the A10.

35. The WWHAR scheme comprises the following elements:

- A housing access road to the east of West Winch connecting the A47 with the existing A10
- Dualling of the existing A47 between Hardwick Interchange Roundabout and the housing access road
- Modifications to the Hardwick Interchange to accommodate additional housing traffic and the rerouted A10 (removal of smaller roundabout to the east, new slip roads on and off the A47 and potential upgrades to signals)
- A new signalised roundabout on the A47
- Footway/cycleway to the west of the housing access road part of the scheme
- A range of sustainable and active travel improvements to complement the scheme and those being provided by the WWGA



*Plan to show indicative layout of WWHAR (includes the 'Dualling of A47) and does not accurately show the allocation of West Winch Growth Area.

36. In addition, a new bridge is proposed to carry Rectory Lane over the housing access road to maintain connectivity between West Winch and North Runcton and Chequers Lane will be severed to prevent traffic travelling through North Runcton to the A47.

DfT Funding

37. Since December 2017, Norfolk County Council (NCC) and the Borough Council of King's Lynn and West Norfolk have been working in partnership on scheme development and planning for the WWHAR to ensure its delivery at the earliest opportunity.

38. The A10 was designated Major Road Network (MRN) status by the Department for Transport (DfT) when this new tier of roads was established. This means that improvements can be bid for under the MRN programme if there is a regional consensus. Our Sub National Transport Body, Transport East (TE) has supported the scheme and so it was included in their 5-year programme for the MRN fund. This was based on the strength of an early draft of a business case.

39. In March 2021, NCC submitted a Strategic Outline Business Case (SOBC) for the WWHAR to the DfT. On the 7 July 2022, DfT confirmed that the WWHAR scheme had been approved to progress to the next stage of development which will see the Outline Business Case (OBC) developed and submitted to the DfT in Summer/Autumn 2023.

40. Alongside the development of the OBC, NCC are preparing the planning application for the WWHAR which will also be submitted in Summer/Autumn 2023.

41. Between the 14 November 2022 and 8 January 2023, NCC undertook a Pre-Planning Application Consultation on the WWHAR. A full consultation report will be published in the Summer of 2023 and details of the consultation can be viewed here.

42. It is anticipated that the OBC and Planning permission will be approved in 2024 with construction starting on the WWHAR in 2025. The WWHAR will be constructed within a two-year period and will not be phased.

Delivery/Phasing

43. The delivery of the WWHAR will not be phased. The whole length of the road must be constructed before the completion of more than 1100 of the dwellings allocated by policy E2.1 of the adopted King's Lynn and West Norfolk Site Allocations and Development Management Plan (2016).

44. Pending the construction of the WWHAR between 300-350 (of the 1100 dwellings) may be constructed at the northern end of site E2.1 on land that is controlled by Hopkins Homes by taking access from the A10 in the vicinity of the Winch Public House. This solution will utilise the existing capacity of the A10 and Hardwick interchange to accommodate the additional trips that would be generated by this amount of growth. This is demonstrated by the local highway authority's consultant, WSP, in a technical note, which is annexed to this Topic Paper as Appendix 4.

45. A further 800 dwellings can be constructed in the north of the Growth Area (Hopkins site). This is dependent on the developer agreeing to provide a link to the A47 which must be compatible with the WWHAR under the terms of a section 106 agreement. This is currently agreed with the developer and currently included in the draft S106 Agreement.

Proposed Main Modifications

46. To reflect the recommendations and conclusions of the Technical Note (Appendix 4) the following main modifications are proposed to Policy E2.1:

New Criterion (Part A following criterion 4)

To ensure that traffic impacts remain within a tolerable range development will be subject to the following thresholds:

- up to 300 dwellings with access to the A10 without further strategic intervention;
- for anything above 300 dwellings, completion of a link to the A47 will be required; and
- for more than 1,100 dwellings on site, completion of the West Winch Access Road in full will be required.

Cumulative Impacts of Additional Growth

47. A summary of evidence assessing the cumulative impacts of the proposed additional growth on landscape character, heritage assets, biodiversity and ecology, flood risk (including surface water drainage), air quality, community infrastructure and amenity (i.e. residential living conditions), and any recommended mitigations. Where this evidence is not yet available, the necessary assessments should be commissioned, and the results summarised in the topic paper.

Landscape and Visual Appraisal

48. A Landscape and Visual Appraisal (April 2023) (LVA) (Appendix 5) was prepared using a methodology based on that set out in the 'Guidelines for Landscape and Visual Impact Assessment', produced jointly by the Institute of Environmental Management and Assessment and the Landscape Institute ('the GLVIA', 1995, revised 2002 and again in 2013). The document

'Landscape Character Assessment, Guidance for England and Scotland, 2002' (The Countryside Agency and Scottish Natural Heritage) was also relevant. Appendix A of the LVA sets out the detailed methodology.

49. The LVA sets out an assessment of the landscape effects of the proposed additional dwellings within the WWGA and concludes that the WWGA is, in terms of its potential effects on the local landscape, suitable for the proposed eventual development total of up to 4,000 dwellings. The following is taken from the Summary & Conclusion section of the LVA (Paragraphs 5.6 to 5.15, pages 50-52).

50. *'The WWGA covers an area of 192ha extending to the south from just to the south of the Hardwick Roundabout, to the south west of the A47 and the east of the A10, with some smaller areas also to the west of the A10. There is scattered settlement along both sides of the A10 as it passes through or alongside the WWGA, from the Hardwick Roundabout all the way to the southern edge of the allocation. This settlement ranges from isolated houses up to the substantial main residential area of West Winch around Hall Lane. There are also some small fields alongside the road, either in arable or grazing use, and some residential areas within the more rural area to the east of the A10, including the large, isolated block of post-war housing at Coronation Avenue. As a result, the WWGA, especially alongside the A10, has a somewhat disjointed character, with no real sense of either being within a coherent settlement, or being in the countryside.*

51. *The WWGA and the area around it are not covered by any national or local designations for landscape quality and are influenced by adjacent urban areas and major roads, though the eastern part of the allocated area retains a more open and mainly agricultural character. The quality and value of the landscape of and immediately around the WWGA have therefore been assessed as part of the preparation of this report as medium.*

52. *The landscape assessments for each of the two current planning applications conclude that there would be long term minor adverse effects on the landscape of and around their respective sites. That will tend to change the overall sensitivity of the WWGA to further development as the present balance between urban and rural characteristics becomes tilted more strongly towards the urban. Taking into account the future presence of the two application developments the sensitivity of the remaining parts of the WWGA and the landscape around them to the proposed development has therefore been assessed as low to medium, as the new residential areas would be visible but would not be especially discordant in the context of the existing development and transport corridors within the local landscape.*

53. *The West Winch Growth Area Framework Masterplan shows the broad arrangement of likely development on the balance of the WWGA (beyond the area of the two applications) which has been the subject of the assessment set out in this report. The drawing also shows the broad areas of open space between the new neighbourhoods, based on the corridors along the two gas pipelines. The authors of the masterplan document have confirmed that the balance of 2,390 dwellings for the WWGA can be accommodated within the remaining allocated area outside that covered by the two current planning applications, at net densities of around 35 to 40 dwellings per hectare. They have also confirmed that those densities would typically result in a built form comprising mainly individual (detached or semi-detached) houses of 2 storeys in height, with some areas at 2½ storeys and limited use of 3 storeys, and those parameters have been considered as part of the assessment set out in this report.*

54. *The overall degree of change to the local landscape brought about by the proposed development would be low to medium. This is because, although the change would be extensive in terms of the area affected, it would not be at a high level in terms of its magnitude - there would be a limited loss of landscape characteristics, features or elements, chiefly in*

terms of the loss of the open fields which make up the majority of the area to be developed (though significant areas of land would be retained as open space). The principal change would be in terms of the presence of the new and extended residential areas and associated land uses, which would not appear unusual or discordant within the local partly urban context (which includes the 1,610 dwellings proposed under the two applications as part of the baseline situation), and the change would therefore be incremental in nature.

55. *The anticipated overall effects on the local landscape would therefore be slight to moderate adverse. This is because the proposals would cover a wide area, but their overall extent would not be visible from any one point, and also because where visible, the development would not appear intrusive or out of place in the context of the existing (and proposed, as part of the two applications) residential and other urban land uses around it. There would be some loss of or alteration to existing landscape features or elements, mainly in the form of the loss of the open fields which make up most of the area to be developed, though some of the open land would be retained as extensive areas of new open space as part of the development, and that provision of open space and the layout of the overall development within separate, coherent neighbourhoods would also help to limit the significance of the landscape effects.*

56. *These effects would be soon after completion and would be expected to decrease over time as the proposed planting and extensive areas of open space become established and help to screen and integrate the areas of built development. The general effects on the local landscape would therefore become slight adverse only after around 10 to 15 years.*

57. *The above assessment is of the landscape effects of the additional 2,400 (or 2,390) dwellings as a standalone development relative to the baseline situation of the presence within the local landscape of the two application developments. As the Inspectors' note asked for an assessment of the cumulative impacts of the proposed additional growth for the WWGA, consideration has also been given to the effects of the eventual proposed total of 4,000 dwellings may be (i.e. the 2,400 additional dwellings plus the 1,600 currently allocated). The broad overall conclusion is that in that eventuality the effects would be at roughly the same level in terms of their significance (i.e. the longer term effects would be mitigated by the proposed planting and open space provision to reduce to slight adverse after around 10 to 15 years), but that those effects would be felt over a wider area, simply because of the greater extent of the overall development in question. Any cumulative effects would therefore be in terms of the area affected, rather than the intensity or level of significance of the effects.*

58. *While the proposed location of up to 4,000 new dwellings within one strategic (and greenfield) growth area will inevitably tend to lead to some degree of adverse landscape effects over a significant area, the concentration of development does also create opportunities for strategic master planning and provision of extensive open space, and in this case has enabled the Framework Masterplan to be developed based around the creation of new neighbourhoods separated and defined by those large areas of new open space. It should also be noted that some degree of adverse landscape effects is likely to be inherent in the proposed development of any greenfield site, but for the WWGA the level of those effects has been limited by the relatively low sensitivity of the local landscape (which is already characterised by scattered residential development) and by the ability to masterplan the layout of the development at a strategic scale - provision of up to 4,000 new dwellings on a more ad hoc series of smaller sites would not have benefitted from the overall ability to masterplan the development, and would have been likely to lead to an overall greater level of adverse landscape effects.'*

59. The LVA recommends that it would be beneficial in landscape and visual terms if two broad principles could be adopted as detailed designs are prepared:

a) *'Existing vegetation, where in good condition, should be retained wherever possible and reinforced with new planting where appropriate, to help provide containment, structure and interest for the new developed areas. This would include woodland, hedgerows and trees, as well as any other features such as ponds, small watercourses or areas of potentially species-rich grassland. '*

b) *'Consideration should be given to the possibility of establishing new areas of planting and open space at an early date, and in advance of the adjacent areas of development where possible. This would have the advantage of any new planting being better established and making a more significant contribution in terms of landscape structure and containment as the associated development proceeds and would also have the benefit of the various areas of open space being available for use by the new (and existing) residents as soon as possible.'*

Proposed Main Modifications

60. To reflect the recommendations of the LVA the following main modifications are proposed to Policy E2.1 Part A Criterion 14:

14. Significant 'green infrastructure', including (separately and/or combination, as appropriate):

New Criterion

Retain existing vegetation grassland, trees, woodland, hedgerows and watercourses where they are considered in good condition and contribute positively towards local landscape character;

a. Providing new or enhanced natural landscape planting to reinforce existing landscape features and to integrate the development within the local landscape, ~~character~~ and provide visual amenity within the growth area;

b. Providing recreational open space of at least 9 hectares;

c. ~~conservation~~ Conserve and enhance~~ment of~~ local biodiversity

d. Provide measures to mitigate potential adverse recreational impacts on designated nature conservation sites (SPAs, SACs, Ramsar) outside the growth area.

Heritage Impact Assessment

61. A Heritage Impact Assessment (November 2022) (HIA) [F27a] was prepared taking account of Historic England's Guidance 'The Historic Environment and Site Allocations in Local Plans' and 'The Setting of Heritage Assets'[2].

62. The HIA assessed the potential impact of development within the Site upon the heritage significance of identified heritage assets and addresses the principle of development within the Site and makes recommendations to reduce harm.

63. The potential impact of development was considered in relation to the direct (physical) impacts on heritage assets located within the Site and the indirect (non-physical) impacts on heritage assets located within the Site and within a wider area, due to change within their settings.

[2] Historic England, December 2017. The Setting of Heritage Assets - Historic Environment Good Practice Advice in Planning Note 3 (Second Edition)

64. The HIA identified that the Site forms part of the setting of the following *designated*[3] heritage assets:

- Church of St Mary, Winch, Grade II* Listed
- War Memorial, Grade II Listed (located in the churchyard of Church of St Mary)
- Windmill, Grade II Listed, and
- The Old Dairy Farmhouse

65. The Table below summarises the potential impact of development on these designated heritage assets and the potential mitigation measures.

	Potential Impact of Development	Mitigation
Church of St Mary (includes War Memorial)	(Paragraph 4.14 Page 23) Some level of adverse impact to the setting and significance of the church Should the land to the south of the church be altered/developed in any way, this would likely lead to a high level of harm and the same can be considered for land immediately adjacent to the west. The development of the adjacent fields to the east and south east of the church is likely to cause considerable less than substantial harm	(Paragraph 4.15, Page 23) siting, scale and landscaping of development Enhancements of the church may be more indirect and focussed on enhanced public interaction and understanding of the asset considering walking routes and interpretation that a new development could bring.
Windmill	(Paragraph 4.18, Page 25) urbanisation of this rural typology, and obscuring in wider rural views, will adversely impact the significance of the mill.	(Paragraph 4.18, Page 25) Harm may be reduced though considered landscaping and siting of any new development here. Mitigation could include minimising development in the adjacent fields and considering views across the site towards the windmill in development layouts.
The Old Dairy Farmhouse	(Paragraph 4.16, Page 24) will result in some harm through the urbanisation of the rural farmhouse's setting.	(Paragraph 4.16, Page 24) mitigation may be found in the siting and buffering of new development.

66. The development of the allocation Site, even with mitigation, will result in a level of 'less than substantial harm' to all the above assets. The level of impact will be dependent on the siting and scale of development as well as landscaping. (Paragraph 6.9, Page 33).

67. The HIA also identified several *non-designated*[4] heritage assets:

- Former School House and Adjoining Cottage

[3] A designated heritage asset as defined in Annex 2 of the NPPF (A World Heritage Site, Scheduled Monument, Listed Building, Protected Wreck Site, Registered Park and Garden, Registered Battlefield or Conservation Area designated under the relevant legislation).

[4] Non-designated heritage assets are buildings, monuments, sites, places, areas or landscapes identified as having a degree of significance meriting consideration in planning decisions because of their heritage interest but which do not meet the criteria for designated heritage assets (as defined in Annex 2 of the NPPF)

- Moated Site adjacent to Manor Farm
- Manor Farmhouse
- Nineteenth Century residential building on east side of A10
- Rectory
- Cottages adjacent to The Mill
- Cottages on Mill Lane
- Cottages on Hall Lane
- Sheep Pen on Watering Lane

68. The HIA states that there would be a negative impact of the development of the Site through urbanisation of their rural settings and that the harm to these settings may be reduced through mitigation such as siting of development and landscaping. (Paragraph 4.26, Page 27).

69. The table below summarises the potential impact of development on these non-designated heritage assets.

	Potential Impact of Development
Former School House and Adjoining Cottage	This building forms part of a group with the adjacent church. The impact of development of the Site will be limited to this feature.
Moated Site adj. to Manor Farm	Development of the Site could have a significant level of harm to the setting and significance of this asset
Manor Farmhouse	Development of the Site could have a significant level of harm to the setting and significance of this asset and the associated farmyard/buildings to the east and adjacent to the Site.
19th C residential building on east side of A10	These buildings have a rural rear aspect which will likely be adversely urbanised by development of the Site. The development of the Site will also likely detract from the understanding of the linear form of ribbon development which forms the historic character and setting of these buildings
Rectory	These buildings have a rural rear aspect which will likely be adversely urbanised by development of the Site. The development of the Site will also likely detract from the understanding of the linear form of ribbon development which forms the historic character and setting of these buildings.
Cottages adjacent to The Mill	Urbanisation of their setting would have an adverse impact.
Cottages on Mill Lane	Urbanisation of its rural setting would be adverse to the significance of this asset.
Cottages on Hall Lane	The development of the allocation Site would fully urbanise their environment as well as views away from their main aspect.
Sheep Pen (Watering Lane)	This feature has a functional relationship with its rural surroundings which are formed by the Site. Development here would adversely impact this feature through removal of the rural character

70. There are several archaeological settlement sites recorded on the Norfolk Historic Environment Record within the 1 km Study Area which have been considered (Section 3, Pages

12-19). These indicate that there has been occupation within the Site since the prehistoric through to the post medieval period. Settlements of both Roman and medieval date have been identified which will need to be considered when developing masterplans for the Site. The development of the allocation site will likely directly and adversely impact any archaeological features within the Site. (Paragraph 6.11, Page 33).

71. The HIA concludes that development of the allocation Site will adversely impact the setting and significance of a number of designated and non-designated built heritage assets. The level of impact will be dependent on the siting and scale of development as well as landscaping.

72. The HIA recommends that:

- The harm to the assets will need to be considered under paragraphs 202 and 203 of the NPPF
- As the Site will comprise a number of individual developments, each will require bespoke design to reduce or mitigate harm as part of the planning application process and should be done in consultation with the local planning authority, their heritage advisors and Historic England
- Future development within the Site should consider the potential for enhancement of the significance of heritage assets
- The County Council Archaeologist should be consulted on future planning applications to identify areas for further investigation
- A detailed mitigation strategy for archaeological features should form part of a submitted application
- Future planning applications should be informed by the HIA so mitigation can be embedded which reduces harm to the significance of heritage assets
- A detailed Heritage Impact Assessment will be required for all future planning applications

Proposed Main Modifications

73. To reflect the recommendations of the HIA the following main modifications are proposed to Policy E2.1 Part B Criterion 7 and to the supporting text at paragraph 9.3.1.59:

Policy E2.1 Part B criterion 7

A detailed ~~h~~Heritage Impact ~~a~~Assessment (HIA) that identifies any heritage assets (including archaeology) potentially affected by the proposed development, and intended measures for their protection, recording, enhancement, setting treatment, etc. as appropriate. The Heritage Impact Assessment should identify any necessary mitigation measures and be sufficiently detailed and proportionate to satisfy the requirements of Historic England in terms of the requirements of the NPPF. The detailed HIA must also take account of the Councils' Heritage Impact assessment for West Winch and its recommendations.

Supporting Text

9.3.1.59 The Growth Area ~~comes close to the listed buildings of: Church of All Saints in North Runcton (Grade I listed); Church of St Mary in West Winch (Grade II* listed);~~

~~and also Dairy Farmhouse; Old Windmill; and The Gables. The setting of these will need to be treated with great care. The HIA identified that the Site~~ forms part of the setting of the following designated heritage assets:

- Church of St Mary, Winch, Grade II* Listed
- War Memorial, Grade II Listed (located in the churchyard of Church of St Mary)
- Windmill, Grade II Listed, and
- The Old Dairy Farmhouse

9.3.1.60 A detailed ~~h~~Heritage Impact ~~a~~Assessment will need to identify any other key issues to be considered, including the archaeological considerations and unlisted built development of particular character.

74. The proposed main modification to criterion 7 of Policy E2.1 was agreed in consultation with Historic England and set out in the Statement of Common Ground [F28a], alongside a proposed re-drafted Policy LP20 Historic Environment Policy [F28b] which reflects national policy requirements in relation to heritage assets and covers the remaining recommendations from the HIA.

Ecology & Biodiversity

75. An Ecology & Biodiversity Assessment (March 2023) (Appendix 6) was undertaken to identify any constraints to the delivery of the anticipated growth at the West Winch Growth Area in relation to ecological issues, the preservation and enhancement of biodiversity, the broad requirements for mitigation and enhancement and the feasibility of the delivery of the mitigation measures that would be most appropriate. Habitats were recorded according to the UK Habitat Classification, a system designed in association with Defra's Biodiversity Metric which is used for the calculation of Biodiversity Net Gain.

76. The Assessment describes the Growth Area as being located on the edge of a plateau of sands and gravels, with slopes down to surrounding fenland and is predominantly a landscape of arable cultivation, with small, mostly horse grazed, pastures around the edges of the existing settlement.

77. The following is taken from the Executive Summary of the Assessment (Paragraphs 1.3 to 1.9, page 5).

78. *There are small areas of secondary woodland and hedgerows on some field boundaries. The only site designated for nature conservation within the Growth Area is the Brook Watering Meadow County Wildlife Site (CWS), which is a small field of unimproved grassland, and it is recommended that it and adjoining semi-natural areas are protected from development. There are three CWS adjacent to the Growth Area boundaries.*

79. *Available survey information suggests the presence of populations of the following protected and Priority species: Great Crested Newts, bats, reptiles and breeding birds. Impacts to these populations will require mitigation measures within the Growth Area boundary, or compensation outside of it.*

80. *The general ecological impacts that will result from development within the Growth Area are:*

    - *Habitat loss, although no habitats of higher ecological significance will be lost, and in the longer term, there will be an increase in the extent of semi-natural habitats*
    - *Fragmentation, particularly as a result of the Housing Access Road, which could be mitigated by the inclusion of green bridges and underpasses in the road design to tie in with the Growth Area's green infrastructure*

- *Disturbance, caused by new residents and their recreational activity, which can be mitigated by careful design of adequate public access infrastructure and the overall layout of semi-natural habitats to avoid more sensitive areas*

81. *It will be necessary to demonstrate a minimum of 10% biodiversity net gain for each planning application submitted, and rough calculations show that this should be achievable within the Growth Area boundary taken as a whole. A deficit in the required level of biodiversity net gain could be overcome by purchasing habitat units outside of the Growth Area boundary.*

82. *The creation of new habitats for biodiversity net gain should be within fewer, larger blocks, with connections to the green infrastructure included within the layout of developed areas. The undevelopable corridors associated with gas pipelines and overhead power lines will be suitable for the creation of new habitats. Habitat creation should focus on grassland and heathland habitats with small fields divided by hedgerows, to preserve the open "farmland" landscape. Existing semi-improved grasslands and secondary woodland can be enhanced to provide greater biodiversity value.*

83. *The new buildings in developed areas should include in-fabric bird and bat boxes in order that they can contribute to enhancing populations of urban wildlife such as pipistrelle bats and Swift.*

Proposed Main Modifications

84. To reflect the recommendations of the Ecology and Biodiversity Assessment the following main modifications are proposed to Policy E2.1:

Part A Criterion 14:

Significant 'green infrastructure', including (separately and/or combination, as appropriate):

a. landscape planting to integrate the development within the local landscape, character and provide visual amenity within the growth area;

New Criterion

creation of new habitats where necessary, with an emphasis on grassland, heathland and/or hedgerows

b. recreational open space of at least 9 hectares;

c. conservation and enhancement of local biodiversity

d. measures to mitigate potential adverse recreational impacts on designated nature conservation sites (SPAs, SACs, Ramsar) outside the growth area.

Part B Criterion 5:

An ecological assessment that identifies

New Criterion

How a minimum of 10% biodiversity net gain can be delivered, both for the Growth Area as a whole and individual development phases

a. the ecological assets, sensitivities and potential of the application site and its surroundings, including County Wildlife Sites beyond the Growth Area boundaries

b. the likely impacts of the proposed development on these,

New Criterion

impacts of development upon protected and priority species (particularly Great Crested Newts, bats, reptiles and breeding birds)

c. where habitats of ecological significance will be lost, proposals for mitigation, conservation and enhancement, which may include habitat enhancements beyond the development boundary or micro measures such as bird or bat boxes, and

d the likely net impact on these.

Part B Criterion 6:

A package of habitat protection measures, to mitigate potential adverse impacts of additional recreational pressure associated with the allocated development upon nature conservation sites covered by the habitats assessment regulations. This package of measures will require specialist design and assessment, but is anticipated to include provision of an integrated combination of:

a. application site, to limit the likelihood of additional recreational pressure (particularly in relation to exercising dogs) on nearby relevant nature conservation sites.

b. informal open space (potentially over and above the local planning authority's normal standards for play space) including publicly accessible semi-natural habitats to mitigate impacts of recreational activity upon more sensitive areas;

c. a network of attractive pedestrian routes, and car access to these, which provide a variety of terrain, routes and links to the wider public footpath network;

d. contribution to enhanced management of nearby designated nature conservation sites and/or alternative green space including wooded areas, hedgerows and field boundaries;

New Criterion

development of multi-functional green spaces including, where possible, retention of existing blue and green infrastructure features (e.g. drainage ditches);

New Criterion

retention of Brook Watering Meadow County Wildlife Site (CWS)

New Criterion

mitigation measures within the Growth Area boundary or compensatory measures beyond, to address the disturbance to protected and priority species (particularly Great Crested Newts, bats, reptiles and breeding birds);

New Criterion

measures to address habitat fragmentation

e. a programme of publicity to raise awareness of relevant environmental sensitivities and of alternative recreational opportunities.

Flood Risk & Drainage Assessment

89. The West Winch Preliminary Flood Risk Assessment and Surface Water and Drainage Strategy was developed by WSP to support development of the West Winch Growth Area (WWGA) (Appendix 7). The key findings of the two parts of this are set out below.

90. The Flood Risk Assessment and Surface Water Drainage Strategy seeks to identify if an extra 2,400 homes can be sustainably added to the WWGA, over and above the 1,600 dwellings already committed through the current Local Plan – 2016 Site Allocations and Development Management Policies (SADMP) Plan, Policy E2.1. The initial phases (1,610 homes) are currently subject to live planning applications, as follows:

- Hopkins Homes (1,110 dwellings); and
- Metacre (500 dwellings).

91. The key findings of the Flood Risk Assessment and Surface Water Drainage Strategy, are as follows:

- Topography – 9 separate drainage catchments, all draining from east to west into proposed discharge locations (e.g. Puny Drain), by way of natural overland runoff and existing drainage ditches
- Underlying geology – predominantly impermeable
- Other on-site constraints may have drainage implications; e.g. east/ west high-pressure gas main
- Overall low risk of surface water flooding; e.g. no historic records of on-site flooding
- Main River (River Nar) – single area within Flood Zones 2 and 3, part of the Gravelhill Lane southernmost part of the Growth Area, with implications for development capacity

92. The Flood Risk and Surface Water and Drainage Strategy sets out a series of recommendations for bringing forward the WWGA. These focus upon application of the national sequential approach to flood risk management, whereby the most vulnerable land-uses within the WWGA should be situated in areas of lowest flood risk.

93. The recommendations of the strategy are as follows:

- The sequential approach should be adopted in developing detailed proposals for development at the Site to locate the most vulnerable land-uses within the Proposed Development in areas of lowest flood risk.
- Further consultation with the Environment Agency and the LLFA should be undertaken to determine the potential requirement for detailed hydraulic modelling and hydrological assessments to be undertaken to confirm the baseline risk of fluvial flooding posed to the Site.
- The existing surface water flow path in the central part of the Site, which originates off-site, as identified on the Environment Agency's Risk of Flooding from Surface Water mapping should incorporated into the layout of the Proposed Development as a blue corridor and residential dwellings should located be outside of the 0.1% annual probability surface water flood extents.

- The existing drainage ditches shown to be present at the Site should be retained and incorporated within the design of the Proposed Development. The LLFA should be consulted at the earliest opportunity should the diversion, culverting, or removal of any of the existing waterbodies within the Site be required to facilitate the delivery of the Proposed Development.
- The proposed site-control attenuation features shown on the Conceptual Surface Water Drainage Strategy drawing should be incorporated within the design of the Proposed Development to ensure that adequate space is allocated for the management of surface water generated by the Proposed Development.
- A site-specific topographic survey should be commissioned to confirm the presence, condition and capacity of the receiving waterbodies and the connectivity of the existing ditch network off-site in which the conceptual surface water drainage strategy is proposing to discharge runoff generated by the Proposed Development.
- The key design principles on which the conceptual surface water drainage is based should be reviewed and refined as the project progresses to ensure that they remain representative of the layout and density of the various proposed land-uses within the Proposed Development.
- Opportunities should be sought to incorporate source control SuDS features that offer complementary water quantity, water quality, biodiversity and amenity benefits within the individual development parcels.
- The conceptual surface water drainage strategy should be reviewed alongside the proposed greeninfrastructure strategy to identify further opportunities to provide multi-functional spaces within the Proposed Development and to maximise the potential biodiversity and amenity opportunities presented by development at the Site.
- The conceptual surface water drainage strategy should be periodically reviewed in conjunction with the LLFA to ensure that the emerging requirements of the SAB relating to the expected enactment of Schedule 3 of the Flood and Water Management Act (201) are incorporated within the design as the project progresses.
- The assumption that source-control SuDS features can be located within the existing easements shown on The Framework Masterplan as set out in the adopted West Winch Growth Area Framework Masterplan SPD should be confirmed as the project progresses.
- Targeted infiltration testing and groundwater monitoring in accordance with the requirements of BRE Digest 365 should be undertaken at the Site and to confirm whether infiltration-based SuDS features can be adopted as appropriate in accordance with the requirements of the drainage hierarchy.
- Finished ground and floor levels should be designed to minimise the impact on people and property during storm events in excess of the design storm event.

Proposed Main Modifications

94. To reflect the recommendations of the Flood Risk and Drainage Assessment the following main modifications are proposed to Policy E2.1

    Part A Criterion 15:

Incorporation of Sustainable Drainage Systems (SuDS) to address surface water run-off, flood risk, biodiversity and the avoidance of groundwater pollution. SuDS should manage overland surface water flow and include features such as green/ blue infrastructure, developed in accordance with the Conceptual Surface Water Drainage Strategy and in consultation with the LLFA. [link to published West Winch Surface Water and Drainage Strategy document].

Part A Criterion 16:

High standards of design, featuring:

a. distinct areas with different characters;

b. a range of densities, with generally higher densities in the vicinities of the neighbourhood centres and public transport routes;

New Criterion

buildings adaptable to climate change, to minimise impacts on people and property;

c. sensitivity to the character and amenity of existing developed areas, and to the qualities and setting of heritage assets.

Part B Criterion 6

A package of habitat protection measures, to mitigate potential adverse impacts of additional recreational pressure associated with the allocated development upon nature conservation sites covered by the habitats assessment regulations. This package of measures will require specialist design and assessment, but is anticipated to include provision of an integrated combination of:

a. application site, to limit the likelihood of additional recreational pressure (particularly in relation to exercising dogs) on nearby relevant nature conservation sites.

b. informal open space (potentially over and above the local planning authority's normal standards for play space);

c. a network of attractive pedestrian routes, and car access to these, which provide a variety of terrain, routes and links to the wider public footpath network;

d. contribution to enhanced management of nearby designated nature conservation sites and/or alternative green space;

New Criterion

development of multi-functional green spaces including, where possible, retention of existing blue and green infrastructure features (e.g. drainage ditches);

e. a programme of publicity to raise awareness of relevant environmental sensitivities and of alternative recreational opportunities.

Part B Criterion 9

Submission of a site specific Flood Risk Assessment in accordance with LP25 [F37, MM p234], demonstrating compliance with the national sequential and exceptions tests, utilising topographic surveys and the latest hydraulic modelling data.

Community Infrastructure

95. The West Winch Growth Area is situated near West Winch village which has a population of about 2,900. The village of West Winch benefits from a convenience store, a primary school and the William Burt Social Club.

96. The South East King's Lynn Strategic Growth Area (IDP) (referred to in paragraphs 14-15 above) sets out the key strategic infrastructure that is required to support the anticipated growth at the West Winch Growth Area in the longer term (up to 4,000 dwellings in the fullness of time).

97. The IDP identifies where and at what time that infrastructure is required and sets out the agreed principles, processes and delivery mechanisms that will be updated as and when planning applications are progressed. Details of the key infrastructure projects in relation to West Winch Growth Area are set out in the Infrastructure Delivery Schedule included in the Plan's Infrastructure Delivery Plan [F24].

98. The table below summarises just the community infrastructure to be provided in relation to the West Winch Growth Area as set out in the Infrastructure Schedule of the Plan's Infrastructure Delivery Plan [F24].

Infrastructure Project	Indicative Delivery Phasing	Estimated Costs	Funding Arrangements	Lead Delivery Agency
Health				
Health Centre	Not known	Not Known	Developer Contributions	Clinical Commissioning Group
Education (Primary)				
West Winch Primary School Expansion from 1 to 2 FE	Occupation of 500 dwellings	£2,445,240	Developer contributions	Norfolk County Council
New 2 FE Primary School West Winch (north)	Occupation of 600 dwellings	£6,900,000	Developer contributions	Norfolk County Council
New 2 FE Primary School West Winch (south)	Occupation of 2,000 dwellings	£6,900,000	Developer contributions	Norfolk County Council
Education (Secondary)				
King's Lynn Increase capacity at various existing Secondary Schools and Sixth Form)	Not known – phased over development	£12,428,267	Developer contributions	Norfolk County Council
Community /Sports Facilities				
Community Centre 1 (1000m^2)	Not known	£2,447,133	Developer Contributions	BCKLWN
Community Centre 2 (500m2)	Not known	£1,223,566	Developer Contributions	BCKLWN
Community Centre 3 (500m2)	Not known	£1,223,566	Developer Contributions	BCKLWN

Infrastructure Project	Indicative Delivery Phasing	Estimated Costs	Funding Arrangements	Lead Delivery Agency
Sports Centre (1500m^2)	Not known	£3,105,575	Developer Contributions	BCKLWN
Green Infrastructure				
Formal recreation facilities Playing fields (10ha)	Phased with development	£5,185,467	Developer Contributions	BCKLWN
Equipped play areas (6ha)	Phased with development	£12,786,084	Developer Contributions	BCKLWN
Allotments (0.6ha)	Phased with development	£104,774	Developer Contributions	BCKLWN
Other Green Spaces (4ha)	Phased with development	£355,169	Developer Contributions	BCKLWN
Natural and semi natural green spaces inc. footpath links and hedgerows (i.e., landscape buffers) (28ha)	Phased with development	£1,988,946	Developer Contributions	BCKLWN
Multi Use Games Area (782m^2)	Phased with development	£203,299	Developer Contributions	BCKLWN

99. As referred to in our response to the Inspectors' Initial Questions Part 2: Question 10: West Winch [F20] an overarching S106 Legal Agreement (referred to as a Framework Agreement) has been prepared that sets out all the strategic infrastructure identified for the Growth Area. Sitting underneath this will be site specific S106 Legal Agreements that will secure the necessary infrastructure on a site-by-site basis.

100. The additional community infrastructure, (such as open spaces, play areas, community centres, allotments, footpaths etc) will provide a better range of community facilities for the residents of the existing village of West Winch and to future residents of the Growth Area.

Noise

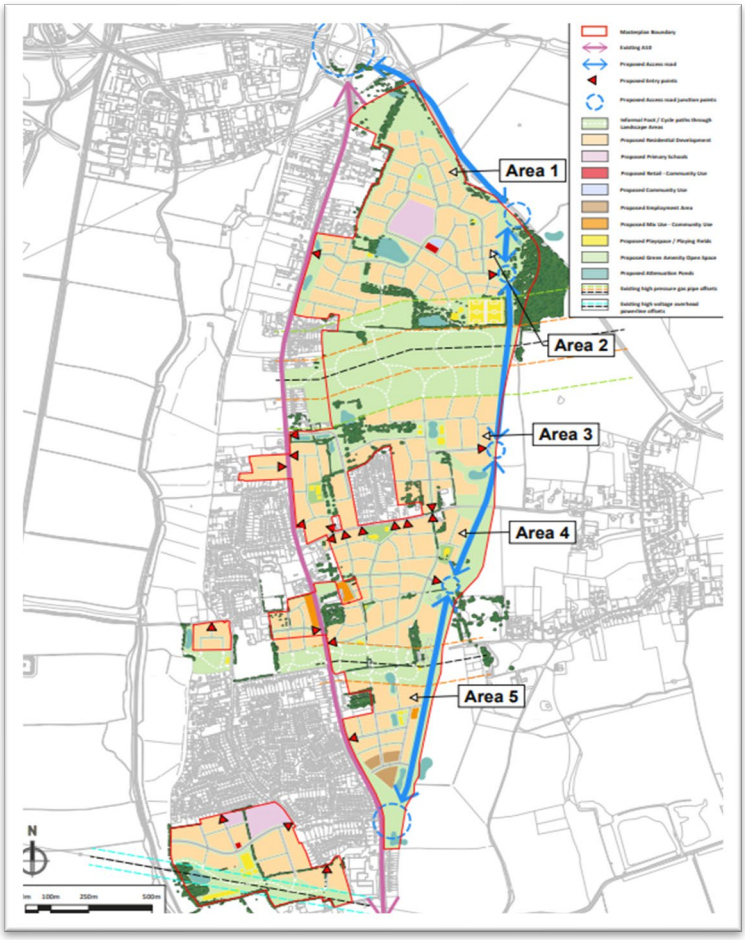
101. In March 2021, WSP were commissioned by Norfolk County Council (NCC) to assist with preparing a West Winch Housing Access Road (WWHAR) and South East King's Lynn Growth Area Masterplan - Acoustics Technical Note (Appendix 8). This Note was undertaken to predict noise levels from the WWHAR and the surrounding road network to understand any related noise constraints to development and give an idea of the likely mitigation measures that would be required.

102. The results of the Note demonstrated subject to good acoustic design mitigation measures being incorporated into the masterplan (such as acoustic screening and locating development appropriately – so away from the highest impacted parts of the site) residential development would be suitable in relation to the impacts of road noise associated with the existing network and the WWHAR.

103. To address part of the Inspectors concerns [G20] in relation the impact on residents living conditions at the WWGA, the Borough Council commissioned a Noise Technical Note in April 2023 (Appendix 9) to provide more detailed noise modelling in relation to the citing of development parcels within the WWGA Masterplan. This review assesses five separate

development areas across the site. These areas have been selected due to their close proximity to the proposed WWHAR and their likely greater impacts from road noise.

104. The following development parcels were assessed:



105. The purpose of this review is to demonstrate that, in relation to any internal and external noise impacts, the proposed development blocks taken from the WWGA masterplan are suitable for residential development. The review also identified whether adopting the principles of good acoustic design and suitable internal and external noise levels for residential development recommended in the March 2021 Technical Note, could be achieved.

106. The modelling (identified within Figures 1-10 in Appendix 9) demonstrates that the indicative building layouts within Areas 1 and 2 would be unlikely to provide sufficient screening within gardens. A second iteration was therefore prepared for Areas 1 and 2 which required minor changes to the development block sizes to accommodate the necessary mitigation. A subsequent iteration for Areas 1 and 2 (Figures 1 and 2 in Appendix 9) based on a reduced size showed improved noise levels within gardens.

107. For Areas 3, 4 and 5, most of the proposed gardens met the criterion with only a few exceeding. It was therefore decided that the proposed building layouts for Areas 3, 4 and 5 did not require further consideration.

108. Where appropriate, reasonable Internal noise mitigation measures such as acoustic laminate glazing or passive wall acoustic ventilation can also be achieved in all relevant areas. Therefore, building on earlier work produced in March 2021 and based on the indicative building layouts

that have been modelled for Areas 1 to 5, it is clear that the target internal and external noise levels can be achieved (subject to appropriate façade mitigation measures) and as such, the development blocks identified within the WWGA masterplan are suitable for residential development.

Proposed Main Modifications

109. To reflect the recommendations of the Noise Technical Note the following main modifications are proposed to Policy E2.1:

Part B

New Criterion

A package of measures to mitigate the potential impacts associated with noise from the surrounding road network. This package of measure will require specialist design and assessment through the provision of a Noise Impact Assessment and is anticipated to include provision of an integrated combination of effective external and internal measures to reduce the impact of noise on the private amenity of residents.

Air Quality

110. An Air Quality Technical Note (Appendix 10) provides an assessment of the potential impacts upon air pollutant concentrations in the area surrounding the Growth Area during the construction phase and operational phase of the proposed development.

111. The assessment covers both the impact on air quality during the construction phase through the emissions of dust and particulate matter (PM) as well as the operational phase (road traffic emissions) whereby the development may lead to changes in traffic flows and consequent changes in nitrogen oxide (NOx) in the local area.

112. The assessment was based on the IAQM Guidance on the Assessment of Dust from Demolition and Construction, the EPUK/IAQM Guidance for Land-Use Planning and Development and based on the latest guidance provided by DEFRA for air quality assessments (LQM, TG (22)).

Construction Phase

113. The assessment of construction dust focused on dust arising from the four dust producing construction activities outlined in the IAQM Guidance. The four dust producing construction activities are:

- Demolition – No demolition works are proposed therefore impacts associated with demolition were not assessed
- Earthworks – Potential sources of impacts associated with earthworks/ground preparation activities include dust emissions resulting from disturbance of dusty materials by construction plant, the construction materials used, vehicle movements and wind action.
- Construction - Potential sources of impacts associated with construction activities include dust emissions resulting from disturbance of dusty materials by construction plant, the construction materials used, vehicle movements and wind action, and
- Trackout - Dust emissions from the site may occur from the transport of dust and dirt from the construction site onto the public road network, where it may be deposited and then re-suspended by vehicles using the network.

114. The assessment is done in three stages:

- Determines the amount of dust particles (Dust Emission Magnitude):
- the potential impacts of dust particles on properties, human health and ecological sites (Sensitivity of the Surrounding Area):
- categorises the potential risks of the dust particles (Risk) and
- provides details of mitigation measures capable of reducing the impacts and risks.

115. The Dust Emission Magnitude for each of the three construction activities is summarised in the table below:

Activity	Dust Emission Magnitude
Earthworks	Large
Construction	Large
Trackout	Large

116. The assessment concludes that the development site is found to be high risk in relation to dust soiling effects on people and property, low risk to human health impacts and ecological impacts as summarised in the table below:

Potential Impact	Risk		
	Earthworks	Construction	Trackout
Dust Soiling	High	High	High
Human Health	Low	Low	Low
Ecological	N/A	N/A	N/A

117. The assessment recommends the following 'highly recommended' mitigation measures relating to the construction phase to reduce the risk of the construction dust impacts to 'not significant':

In respect of communications:

- Develop and implement a stakeholder communications plan that includes community engagement before work commences on site.
- Display the name and contact details of person(s) accountable for air quality and dust issues on the site boundary.
- Display the head or regional office contact information.
- Develop and implement a Dust Management Plan (DMP) approved by the Local Authority. The level of detail will depend on the risk and should include measures in this document. The desirable measures should be included as appropriate for the site. The DMP may include monitoring of dust deposition, dust flux, real time PM10 continuous monitoring and/or visual inspections.

In respect to site management:

- Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken.
- Make the complaints log available to the local authority when asked.

- Record any exceptional incidents that cause dust and/or air emissions, either on or offsite, and the action taken to resolve the situation in the log book.

In respect to monitoring:

- Undertake daily on-site and off-site inspection, where receptors (including roads) are nearby, to monitor dust, record inspection results, and make the log available to the local authority when asked. This should include regular dust soiling checks of surfaces such as street furniture, cars and windowsills within 100 m of site boundary, with cleaning to be provided if necessary.
- Carry out regular site inspections to monitor compliance with the DMP, record inspection results, and make an inspection log available to the local authority when asked.
- Increase the frequency of site inspections by the person accountable for air quality and dust issues on site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions.
- Agree dust deposition, dust flux, or real-time PM10 continuous monitoring locations with the Local Authority. Where possible commence baseline monitoring before work commences on site.

In respect to preparing and maintaining the site:

- Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is possible.
- Erect solid screens or barriers around dusty activities or the site boundary that are at least as high as any stockpiles on site.
- Fully enclose site or specific operations where there is a high potential for dust production and the site is actives for an extensive period.
- Avoid site runoff of water or mud. o Keep site fencing, barriers and scaffolding clean using wet methods.
- Remove materials that have a potential to produce dust from site as soon as possible, unless being re-used on site. If they are being re-used on-site cover as described below.
- Cover, seed or fence stockpiles to prevent wind whipping.

In respect to operating vehicle/machinery and sustainable travel

- Ensure all vehicles switch off engines when stationary
- Avoid the use of diesel or petrol-powered generators and use mains electricity or battery powered equipment where practicable.
- Produce a Construction Logistics Plan to manage the sustainable delivery of goods and materials.
- Impose and signpost a maximum-speed-limit of 15 mph on surfaced and 10 mph on unsurfaced haul roads and work areas (if long haul routes are required these speeds may be increased with suitable additional control measures provided, subject to the approval of the nominated undertaker and with the agreement of the local authority, where appropriate.

- Implement a Travel Plan that supports and encourages sustainable travel (public transport, cycling, walking, and car-sharing)

In respect to operations:

- Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems.
- Ensure an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible and appropriate.
- Use enclosed chutes and conveyors and covered skips.
- Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate
- Ensure equipment is readily available on site to clean any dry spillages and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods.

In respect to waste management:

- Avoid bonfires and burning of waste materials.

118. The assessment also recommends the following 'desirable' mitigation measures relating to the construction phase:

In respect of earthworks:

- Re-vegetate earthworks and exposed areas/soil stockpiles to stabilise surfaces as soon as practicable.
- Use Hessian, mulches or trackifiers where it is not possible to re-vegetate or cover with topsoil, as soon as practicable.
- Only remove the cover in small areas during work and not all at once.

In respect of construction:

- Avoid scabbling (roughening of concrete surfaces) if possible.
- Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place.
- Ensure bulk cement and other fine powder materials are delivered in enclosed tankers and stored in silos with suitable emission control systems to prevent escape of material and overfilling during delivery
- For smaller supplies of fine power materials ensure bags are sealed after use and stored appropriately to prevent dust

In respect of trackout:

- Use water-assisted dust sweeper(s) on the access and local roads, to remove, as necessary, any material tracked out of the site. This may require the sweeper being continuously in use

- Avoid dry sweeping of large areas
- Ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport
- Inspect on-site haul routes for integrity and instigate necessary repairs to the surface as soon as reasonably practicable
- Record all inspections of haul routes and any subsequent action in a site log book
- Install hard surfaced haul routes, which are regularly damped down with fixed or mobile sprinkler systems, or mobile water bowsers and regularly cleaned
- Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable) Ensure there is an adequate area of hard surfaced road between the wheel wash facility and the site exit, wherever site size and layout permits
- Access gates to be located at least 10m from receptors where possible

Operational Phase (Road Traffic Emissions)

119. Atmospheric dispersion modelling[5] was used to assess the air quality impact resulting from the additional road traffic emissions generated by the proposed homes in the Growth Area upon sensitive locations within the vicinity of the site and within the Town Centre Air Quality Management Area (AQMA) and the Gaywood Clock (AQMA).

120. Modelling of the traffic derived emissions was completed for the following years/scenarios:

- 2018 – Baseline/Model Verification
- 2039 – Future Do Minimum scenario – with the 4,000 homes in use in the Growth Area
- 2039 – Future Do Something scenario – to take account forecast traffic growth and additional traffic generated and/or redistributed associated with committed developments and the 4,000 homes at the Growth Area. The proposed West Winch Housing Access Road also included as an infrastructure change.

121. A comparison of the two future modelled scenarios was used to assess the impact of the additional road traffic emissions from the Growth Area upon air quality at specified receptor locations across the modelled domain.

122. The Air Quality Standards (AQS) Objectives apply at locations where members of the public are regularly present and might reasonably be expected to be exposed to pollutant concentrations over a relevant averaging period. The following table sets out the annual mean AQS Objectives for the pollutants:

Pollutant	AQS Objective	Concentration Measured as:
Nitrogen Dioxide (NO_2)	40 µg/m^3	Annual Mean
Particles (PM_{10})	40 µg/m^3	Annual Mean
Particles ($PM_{2.5}$)	20 µg/m^3	Annual Mean

[5] Atmospheric dispersion modelling is used to predict changes in emissions from traffic

123. The Institute of Air Quality Management (IAQM) Impact Descriptors were applied to define the impact of the proposed Growth Area on concentrations of Nitrogen Dioxide (NO_2), Particular Matter (PM_{10}) and Particular Matter ($PM_{2.5}$). The impacts of the Growth Area on all receptor locations are summarised in the table below:

IAQM Impact Descriptor	NO2	PM10	PM2.5
	Number of Receptors		
Substantial Adverse	0	0	0
Moderate Adverse	8	0	0
Slight Adverse	12	0	0
Negligible	112	138	138
Slight Beneficial	3	0	0
Moderate Beneficial	3	0	0
Substantial Beneficial	0	0	0
Total Receptors	**138**	**138**	**138**

124. The results of the air quality dispersion modelling in relation to the emissions are as follows:

Nitrogen Dioxide (NO_2)

- There were no exceedances of the annual mean NO_2 AQS Objective (40µg/m^3) in either the Future Do Minimum scenario or the Future Do Something scenario
- However, two receptors located in the Town Centre AQMA near junctions on Railway Road and London Road reported 38µg/m^3 and 39.4µg/m^3 respectively.

Particulate Matter (PM_{10})

- There were no exceedances of the annual mean PM_{10} AQS Objective (40µg/m^3) in either the Future Do Minimum scenario or the Future Do Something scenario.
- The greatest concentration reported in the Future Do Something scenario was 20.3µg/m^3 well below the 40µg/m^3 reported near a junction of the London Road within the Town Centre AQMA

Particulate Matter ($PM_{2.5}$)

- There were no exceedances of the annual mean $PM_{2.5}$ AQS Objective (20µg/m^3) in either the Future Do Minimum scenario or the Future Do Something scenario.
- The greatest concentration of $PM_{2.5}$ of 12.5µg/m^3 was reported near a junction on London Road within the Town Centre AQMA in the Future Do Something scenario.

125. The conclusions drawn from the results of the air quality dispersion modelling are as follows:

- All modelled receptors were below the AQS Objective for NO_2, PM_{10} and $PM_{2.5}$ in both the Future Do Minimum and Future Do Something scenarios.
- The implementation of the Growth Area has a “negligible” impact upon all receptor locations for PM_{10} and $PM_{2.5}$
- The implementation of the WWGA has a “negligible” or “slight” impact upon most receptor locations (124 out of 138 receptors) for NO_2
- When comparing Future Do Minimum Scenario with the Future Do Something scenario, annual mean NO_2 concentrations are predicted to increase at most locations, with the greatest increase seen along London Road which increased by 3.8 µg/m^3. It

is worth noting that these locations were still reporting below the AQS Objective in the Future Do Something scenario, this impact is defined as "Moderate Adverse" under the IAQM Impact Descriptors.

- The implementation of the Growth Area is predicted to result in a "moderate adverse" impact on NO_2 concentrations at eight modelled receptor locations located on London Road. Seven of these locations remained below 10% of the AQS Objective.
- There were improvements in NO_2 concentrations along A10 Main Road; the most notable reduction in concentration was at a receptor located between Long Lane and Gravelhill Lane south of the Growth Area, which reduced by 4.8µg/m^3. This may be attributable to infrastructure changes associated with the Growth Area, and the rerouting of traffic in the Future Do Something scenario.
- PM_{10} and $PM_{2.5}$ followed similar trends to NO_2, predicting reductions in concentrations along the A10 Main Road, and increases in concentrations across the remainder of the modelled domain.

Proposed Main Modifications

126. To reflect the recommendations of the Air Quality Technical Note the following main modifications are proposed to Part B Policy E2.1:

New Criterion (to follow criterion 4)

Development proposals should be consistent with the Council's Air Quality Management Strategy.

Cumulative Impacts on Developable Area

127. In considering the evidence assessing the cumulative impacts of the proposed additional growth on landscape character, heritage assets, biodiversity and ecology, flood risk & surface water drainage, air quality, community infrastructure and amenity, the following table sets out the amount of land required within the Growth Area to provide the necessary infrastructure and mitigation measures identified.

	Hectares Required
Education	
New 2 FE Primary School West Winch (north)	2
New 2 FE Primary School West Winch (south)	2
Community /Sports Facilities	
Community Centre 1 (1000m^2)	0.1
Community Centre 2 (500m2)	0.05
Community Centre 3 (500m2)	0.05
Sports Centre (1500m^2)	0.15
Green Infrastructure	
Formal recreation facilities Playing fields	10
Equipped play areas	6
Allotments	0.6
Other Green Spaces	4
Natural and semi natural green spaces inc. footpath links and hedgerows (i.e., landscape buffers, exclusion zones for gas and electricity, attenuation ponds)	28
Multi Use Games Area (782m^2)	0.08
Employment	

	Hectares Required
Employment	1
Shops (3 x 280m2)	0.056
West Winch Access Road	
Land for WWHAR[6]	20.7
Total Land Required for Infrastructure and Mitigation	**74.78**

128. The gross area of the Growth Area is 192ha. The net developable area is 117.21ha once the 74.8ha required for the infrastructure and mitigation measures are deducted. The dwellings per hectare (dph) will vary across the Growth Area as a whole. The scale, form, character, design and mix of development will need to reflect the local character as well as topography. For example, it is anticipated that lower densities would be acceptable in the vicinity of the Countryside Buffer and higher densities within the vicinity of the 3 neighbourhood centres. Densities will range from 25dph to 40dph across the site. The average density will therefore be 34.45dph which would result in an overall development capacity of approximately 4,038 dwellings.

Justification for additional Growth

Justification for the additional growth (of 2,400 dwellings) proposed in the submitted Plan, over and above the 1,600 dwellings for which the site is allocated in the SADMP, particularly in light of the size of the overall surplus of housing land up to the end of the Plan period and beyond.

129. As set out in the History section, it is emphasised that the Growth Area, in its entirety, could deliver at least 4,000 dwellings in the fullness of time. The submitted Plan suggested 2,500 dwellings could be delivered within the Plan period. The Council proposed a main modification ([F37] MM28) to reduce the expected delivery to 1,600 dwellings to reflect the anticipated growth from the planning permissions (reflected in the Housing Trajectory, April 2023). It is acknowledged that additional planning applications may come forward following the construction of the West Winch Access Road (expected delivery 2027) and substantially more development could take place within the Plan period, although the scale and timeframe of this development is not known at present.

130. The DfT funding decision for the West Winch Housing Access Road (integral to addressing the capacity issues of the A10) will include consideration of the quantum of land for housing development the scheme will unlock and is reliant on the Growth Area delivering 4,000 dwellings in the future.

131. Whilst a development of up to 1,100 homes with a direct link to the A47 would be considered sustainable, the Council seeks to maximise the potential opportunities that an additional 2,400 dwellings at West Winch will bring to the Borough. The additional growth will directly support the justification for, and delivery of, the West Winch Housing Access Road which will help reduce traffic congestion on the A10. It will also provide a critical mass necessary to support on-site social and environmental infrastructure for a new community providing a wider level and choice of social and environmental infrastructure, thus making the development more sustainable and less car dependent for day-to-day services and facilities and will also support the sustainability of those nearby settlements that do not have such infrastructure provision.

[6] Indicative land requirement within the site allocation for the WWHAR informed by the West Winch Growth Area Framework Masterplan SPD.

Appendices

Appendix 1 BCKLWN Core Strategy Issue Statement No.13
Appendix 2 BCKLWN Core Strategy Issue Statement No.12
Appendix 3 Transport Technical Note
Appendix 4 A10 Headroom West Winch
Appendix 5 Landscape and Visual Appraisal April 2023
Appendix 6 Ecology & Biodiversity Assessment March 2023
Appendix 7 Flood Risk Assessment and Surface Water and Drainage Strategy
Appendix 8 Acoustics Technical Note March 2021
Appendix 9 Noise Technical Note in April 2023
Appendix 10 Air Quality Assessment May 2023
Appendix 11 Policy E2.1 with Proposed Main Modifications